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35 U.S.C. § 103(a) as being unpatentable over Hepp in light of the knowledge of one of ordinary skill in the art. Applicants respectfully traverse these rejections.

The Examiner argues that Hepp discloses the claimed invention including: “a telemetry receiver, 34a, having energy storage means, capacitor C1, and other capacitors C2-C4, and telemetry transmitter, 34b and 74, using energy storage means, C11 and C10.”

Amended claim 1 recites “[a]n electromedical implant capable of exchanging data with an external apparatus, the implant comprising a telemetry device for the exchange of data with the external apparatus and at least two energy storage means, wherein the telemetry device comprises a telemetry transmitter and a telemetry receiver, and wherein the telemetry transmitter is provided with one of the at least two energy storage means for providing energy for the transmission of data, and the telemetry receiver is provided with a separate one of the at least two energy storage means for providing energy for the reception of data.”

Applicants’ claims 11 and 12 also recite: “...wherein the telemetry transmitter is connected to one of the energy storage devices for transmitting data, and the telemetry receiver is connected to a separate one of the energy storage devices for receiving data.”

The quoted element of Applicants’ claims are absent from Hepp and therefore make Applicants’ claims novel and unobvious over Hepp. In contrast, not only are the telemetry receiver and telemetry transmitter disclosed in the Hepp reference connected in common to a single energy storage circuit, as repeatedly recited in the text of the Hepp et al. patent (See, for example, Hepp: Figure 5, col. 7, lines 33 to 36, and col.8, lines 9 to 15), but the capacitors cited by the Examiner as providing power to the receiving and transmission components of the Hepp et al. device in no way provide power for the actual “transmission” or “receiving” of data.

Indeed, a review of circuit diagram shown in Figure 5 of the Hepp et al. reference, shows that the receiver coil “34a” and the transmitter coil “34b” are connected together to a common ground, and derive power for “transmission” and “reception” from the same “-V” and “+V” outputs from the same power source “66”. It is further clear that the only energy storage devices in the telemetry transmitter, as identified by the Examiner, capacitors C10 and C11 in no way supply the energy for the actual transmission function. Rather, capacitor C11 serves as a buffer for low pass filtering the clock signal, and capacitor C10 provides frequency filtering.

Accordingly, Hepp et al. do not teach, disclose or even suggest an implant comprising a telemetry device “...wherein the telemetry transmitter is provided with one of the at least

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two energy storage means for providing energy for the transmission of data, and the telemetry receiver is provided with a separate one of the at least two energy storage means for providing energy for the reception of data", as required in claim 1, or "...wherein the telemetry transmitter is connected to one of the energy storage devices for transmitting data, and the telemetry receiver is connected to a separate one of the energy storage devices for receiving data", as required in claims 11 and 12, and therefore cannot anticipate, or make obvious, the claims of the current invention.

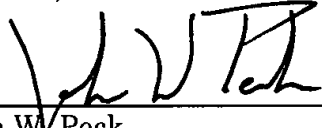
Claims 2 to 4 and 7 to 9 are all directly or indirectly dependent on claim 1. As such, these claims are believed allowable based upon claim 1.

In view of the foregoing amendments and remarks, consideration and allowance of this application are respectfully requested.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By


John W. Peck
Reg. No. 44,284
626/798-9900

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

1 1. (Thrice Amended) An electromedical implant capable of exchanging data with
2 an external apparatus, the implant comprising a telemetry device for the exchange of data
3 with the external apparatus and at least two energy storage means, wherein the telemetry
4 device comprises a telemetry transmitter and a telemetry receiver, and wherein ~~[each of]~~ the
5 telemetry transmitter is provided with one of the at least two energy storage means for
6 providing energy for the transmission of data, and the telemetry receiver is provided with a
7 separate one of the at least two energy storage means for providing energy for the reception
8 of data.

1 11. (Twice Amended) A cardiac pacemaker implant capable of exchanging data with
2 an external apparatus comprising a telemetry device and a plurality of energy storage devices,
3 wherein the telemetry device comprises a telemetry transmitter and a telemetry receiver,
4 wherein ~~[each of]~~ the telemetry transmitter is connected to one of the energy storage devices
5 for transmitting data, and the telemetry receiver is connected to a separate one of the energy
6 storage devices for receiving data.

1 12. (Twice Amended) An electromedical implant capable of exchanging data with
2 an external apparatus, the implant comprising a telemetry device for the exchange of data
3 with such external apparatus and at least two energy storage devices, wherein the telemetry
4 device comprises a telemetry transmitter and a telemetry receiver, and wherein ~~[each of]~~ the
5 telemetry transmitter is connected to one of the at least two energy storage devices for
6 transmitting data, and the telemetry receiver is connected to a separate one of the at least two
7 energy storage devices for receiving data.



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Daryl A. Albus

Applicant : Michael Kraus et al.
Application No. : 09/603,812
Filed : June 26, 2000
Title : ELECTROMEDICAL IMPLANT
Grp./Div. : 3762
Examiner : George Robert Evanisko
Docket No. : 39732/JWP/E43

SUPPLEMENTAL PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Post Office Box 7068
Pasadena, CA 91109-7068
June 7, 2002

Commissioner:

Further to our Preliminary Amendment of May 3, 2002, and prior to examination, please amend the above-referenced patent application as follows:

In the Claims:

Claims 2, 3, and 5 have been amended. Pending claims 1 to 8 and 10 to 12 follow.

1 1. An electromedical implant capable of exchanging data with an external
2 apparatus, the implant comprising a telemetry device for the exchange of data with the
3 external apparatus and at least two energy storage means, wherein the telemetry device
4 comprises a telemetry transmitter and a telemetry receiver, and wherein each of the telemetry
5 transmitter and the telemetry receiver is provided with a separate one of the at least two
6 energy storage means.

1 2. (Twice Amended) The implant as set forth in claim 1 wherein each of the energy
2 storage means comprises a buffer capacitor.

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1 3. (Twice Amended) The implant as set forth in claim 2 wherein the buffer
2 capacitor for the telemetry transmitter and the buffer capacitor for the telemetry receiver are
3 of different sizes.

1 4. The implant as set forth in claim 2 wherein the buffer capacitors are designed
2 to be charged up either together or individually.

1 5. (Twice Amended) The implant as set forth in claim 2 wherein the buffer
2 capacitor for the telemetry transmitter is charged up immediately prior to a transmission
3 procedure and the buffer capacitor for the telemetry receiver is charged up immediately prior
4 to a reception procedure.

1 6. The implant as set forth in claim 1 wherein the energy storage means for the
2 telemetry transmitter is further connected to the telemetry receiver such that said energy
3 storage means for the telemetry transmitter further operates as a reserve energy storage
4 means for the telemetry receiver.

1 7. The implant as set forth in claim 1 wherein the energy storage means for the
2 telemetry receiver is further connected to the telemetry transmitter such that said energy
3 storage means for the telemetry receiver further operates as a reserve energy storage means
4 for the telemetry transmitter.

1 8. The implant as set forth in claim 1 wherein the energy storage means for the
2 telemetry receiver and the energy storage means for the telemetry transmitter are connected
3 either in parallel or in series with each other.

1 10. The implant as set forth in claim 1 wherein the electromedical device is selected
2 from the group consisting of: a cardiac pacemaker, a defibrillator, and a cardioverter.

1 11. A cardiac pacemaker implant capable of exchanging data with an external
2 apparatus comprising a telemetry device and a plurality of energy storage devices, wherein
3 the telemetry device comprises a telemetry transmitter and a telemetry receiver, wherein each

4 of the telemetry transmitter and the telemetry receiver is connected to a separate one of the
5 energy storage devices.

1 12. An electromedical implant capable of exchanging data with an external
2 apparatus, the implant comprising a telemetry device for the exchange of data with such
3 external apparatus and at least two energy storage devices, wherein the telemetry device
4 comprises a telemetry transmitter and a telemetry receiver, and wherein each of the telemetry
5 transmitter and the telemetry receiver is connected to a separate one of the at least two energy
6 storage devices.

REMARKS

Claims 1 to 8 and 10 to 12 are pending in this application. Claims 2, 3, and 5 have been amended.

Attached hereto is a marked up version of the changes made to the claims by the current amendment. The attached page is captioned "Version with markings to show changes made." Applicants respectfully request that the foregoing amendment be entered and reconsideration and allowance of the claims be granted.

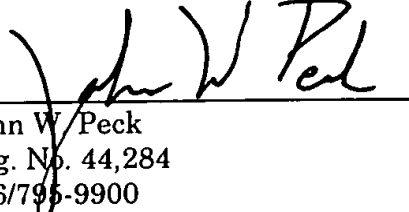
Further to our Preliminary Amendment file May 3, 2002, Applicants have amended claims 2, 3, and 5 to clarify the nature of the invention. Applicants submit that no new matter is being entered with these amendments.

Applicants submit that the claims are now in condition for allowance, and consideration and allowance of this application are respectfully requested.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By


John W. Peck
Reg. No. 44,284
626/795-9900

VERSION WITH MARKINGS TO SHOW CHANGES MADE

1 2. (Twice Amended) The implant as set forth in claim 1 wherein each of the energy
2 storage means comprises a buffer capacitor [~~and wherein each of the energy storage means~~
3 ~~is designed to charge up said buffer capacitor~~].

1 3. (Twice Amended) The implant as set forth in claim 2 wherein the buffer
2 capacitor [~~for the energy storage means~~] for the telemetry transmitter and the buffer capacitor
3 [~~for the energy storage means~~] for the telemetry receiver are of different sizes.

1 5. (Twice Amended) The implant as set forth in claim 2 wherein the buffer
2 capacitor [~~for the energy storage means~~] for the telemetry transmitter is charged up
3 immediately prior to a transmission procedure and the buffer capacitor [~~for the energy storage~~
~~means~~] for the telemetry receiver is charged up immediately prior to a reception procedure.